

Summary of Preferred Capacitors (Note 1)

Control Specification	Military Style	Description	Package	Capacitance Range		Voltage Range (Volts, dc)		FRL		Refer to Page No.
				Min	Max	Min	Max	Grade 1	Grade 2	
MIL-C-20	CCR	Fixed, ceramic, temperature compensating	Molded	1.0 pF	0.082 μ F	50	200	S	R, P	01-2
MIL-C-123	CKS	Fixed, ceramic	Molded and Unencapsulated	1.0 pF	1.0 μ F	50	100	(Note 2)	(Note 2)	01-3
MIL-C-23269	CYR	Fixed, glass	Hermetic	0.5 pF	0.01 μ F	100	100	S	S	01-5
MIL-C-39003	CSR, CSS	Fixed, tantalum (solid) electrolytic	Hermetic	0.0047 μ F	560.0 μ F	10	75	C	B	01-6
MIL-C-39006	CLR	Fixed, tantalum (non-solid) electrolytic	Hermetic	0.12 μ F	1500.0 μ F	10	300	R	P	01-7
MIL-C-39014	CKR	Fixed, ceramic	Molded	10.0 pF	0.47 μ F	50	200	(Note 3)	S	01-9
MIL-C-55365	CWR	Chip, fixed, tantalum	Unencapsulated	0.10 pF	100.0 μ F	4	50	C	B	01-10
MIL-C-55681	CDR	Chip, fixed, ceramic dielectric	Unencapsulated	10.0 pF	0.47 μ F	50	500	S	R, P	01-11
MIL-C-83421	CRH	Fixed, metalized plastic film, DC, AC	Hermetic	0.001 μ F	22.0 μ F	30	400	S	R	01-13
MIL-C-87217	CHS	Fixed, supermetallized, plastic film, DC, low energy, high impedance	Hermetic	0.001 μ F	10.0 μ F	30	100	(Note 2)	(Note 2)	01-14

Notes:

1. Detail specifications must be consulted to determine available capacitance values, tolerances and characteristics. All combinations are not available.
2. Failure rate levels (FRLs) are not applicable for these parts. MIL-C-123 and MIL-C-87217 capacitors are preferred for Grade 1 and 2 applications.
3. MIL-C-39014 capacitors are not preferred for Grade 1 applications. Use MIL-C-123 parts.

MIL-C-20 Capacitors **Fixed, Ceramic Dielectric, Temperature Compensating, Established Reliability**

Part Number Explanation:				
CCR**	C*	XYZ	X	X
Style - CCR identifies the MIL-C-20 capacitor and ** identifies the capacitor style.	Temperature Coefficient C=Nominal value=0ppm/°C *=Tolerance (ppm/°C) CG = 30 CH = 60 CJ = 120 CK = 250 CX = Not practically measurable	Capacitance in pF XY=Significant digits Z=number of zeros For values less than 10pF, X and Z= Significant digits , Y=decimal point (R) (Note 1)	Capacitance Tolerance B = ± 0.1 pf C = ± 0.25 pf D = $\pm .5$ pf F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ K = $\pm 10\%$	Failure Rate Level - (% per 1000 hours) P=0.1 R=0.01 S=0.001

Part Number	Detail Specifica- tion MIL-C-20	Style	Capacitance		Rated Voltage (Volts, dc) (Note 2)	Dissipation Factor (%)	Temperature		Configuration		FRL	
			Range (pF) (Note 1)	Tolerances Available			Range (°C)	Characteristics Available	Case Type	Lead Type	Grade 1 (Note 3)	Grade 2
CCR05C*XYZ XX	/35	CCR05	1.0-3,300	B,C,D,F,G,J	50,	0.15	-55 to +125	CG,CH,CJ,CK,CX	Rect molded	Radial	S	P,R
CCR06C*XYZ XX	/36	CCR06	360-10,000	F,G,J,K				CG				
CCR07C*XYZ XX	/37	CCR07	2,200-22,000	F,G,J,K				CG				
CCR08C*XYZ XX	/38	CCR08	3,900-68,000	G,J,K				CG				
CCR75C*XYZ XX	/27	CCR75	1.0-680	B,C,D,F,G,J	100,			CG,CH,CJ,CK,CX	Tubular molded	Axial		
CCR76C*XYZ XX	/28	CCR76	82-1,000	F,G,J	CG							
CCR77C*XYZ XX	/29	CCR77	150-5,600	F,G,J,K	CG							
CCR78C*XYZ XX	/30	CCR78	820-27,000	F,G,J,K	CG							
CCR79C*XYZ XX	/31	CCR79	3,900-82,000	F,G,J,K	CG							

Notes:

1. See applicable MIL-C-20 detailed specification for capacitance values.
2. For low voltage applications (<10 volts dc), capacitor rated voltage shall be at least 100 volts dc.
3. For Grade 1 low voltage applications, perform lot sample testing per Group B, Subgroup 2, of MIL-C-123.

MIL-C-123 Capacitors (Page 1 of 2)
Fixed, Ceramic Dielectric, Temperature Stable and General Purpose, High Reliability

Part Number Explanation:					
M123AXX	B*	X	XYZ	X	X
Military Specification Number A= Modification XX= Detail Specification	Characteristic at Rated Voltage BP = $\pm 30\text{ppm}/^{\circ}\text{C}$ BX = +15%, -20% BR = +15%, -10%	Voltage B = 50V C = 100V D = 200V	Capacitance in pF XY=Significant digits Z=number of zeros For values less than 10pF, X and Z= Significant digits, Y=Decimal point (R) in picofarads (Note 1)	Capacitance Tolerance C = $\pm 0.25\%$ D = $\pm 0.50\%$ F = $\pm 1.0\%$ J = $\pm 5.0\%$ K = $\pm 10.0\%$	Termination (Note 2)

Part Number	Detail Specification MIL-C-123	Style CKS	Capacitance		Rated Voltage (Volts, dc)	Dissipation Factor (%)	Temperature		Configuration		Grade
			Range (pF)	Tolerances Available			Range ($^{\circ}\text{C}$)	Characteristics Available	Case Type	Lead Type	
M123A01BXXXXXXXX	/1	05	4.7-10,000	C,D,F,J,K	50, 100	(Note 3)	-55 to +125	See Table I of MIL-C-123 and QPL-123	Molded Rectangular	Radial	(Note 4)
M123A02BXXXXXXXX	/2	06	270-470,000	F,J,K	50, 100				Molder Rectangular	Radial	
M123A03BXXXXXXXX	/3	07	2700-1,000,000	F,J,K	50, 100				Molded Rectangular	Radial	
M123A04BXXXXXXXX	/4	11	4.7-4700	C,D,F,J,K	50, 100				Molded Tubular	Axial	
M123A05BXXXXXXXX	/5	12	110-10,000	F,J,K	50, 100				Molded Tubular	Axial	
M123A06BXXXXXXXX	/6	14	1100-47,000	F,J,K	50				Molded Tubular	Axial	
M123A07BXXXXXXXX	/7	15	1100-180,000	F,J,K	50				Molded Tubular	Axial	
M123A08BXXXXXXXX	/8	16	2400-1,000,000	F,J,K	50, 100				Molded Tubular	Axial	
M123A10BXXXXXXXX	/10	51	1.0-4700	C,D,F,J,K	50				Unencapsulated Chip	Leadless	
M123A11BXXXXXXXX	/11	52	300-47,000	F,J,K	50				Unencapsulated Chip	Leadless	
M123A12BXXXXXXXX	/12	53	300-100,000	F,J,K	50				Unencapsulated Chip	Leadless	
M123A13BXXXXXXXX	/13	54	1100-470,000	F,J,K	50				Unencapsulated Chip	Leadless	
M123A16BXXXXXXXX	/16	22	1.0-100,000	D,F,J,K	50, 100, 200				Molded Rectangular	DIP	
M123A17BXXXXXXXX	/17	23	560-220,000	F,J,K	50, 100, 200				Molded Rectangular	DIP	
M123A18BXXXXXXXX	/18	24	120,000-470,000	K	50, 100				Molded Rectangular	DIP	

See notes on page 01-4.

MIL-C-123 Capacitors (Page 2 of 2)
Fixed, Ceramic Dielectric, Temperature Stable and General Purpose, High Reliability

Notes:

1. See applicable MIL-C-123 detailed specification for capacitance values.
2. See MIL-C-123, Table IV. The available terminations are stated in the QPL. Termination type W for MIL-C-123 non leaded style capacitors is not permitted as this termination permits the use of pure tin.
3. Dissipation factor for BX and BR \leq 2.5 percent and for BP \leq 0.15 percent.
4. Failure Rate Level (FRL) not applicable. These parts may be used in Grade 1 and Grade 2 applications

MIL-C-23269 Capacitors
Fixed, Glass Dielectric, Established Reliability

Part Number Explanation:

M23269

 Military Specification Number

/XX

 Detail Specification Number

-XXXX

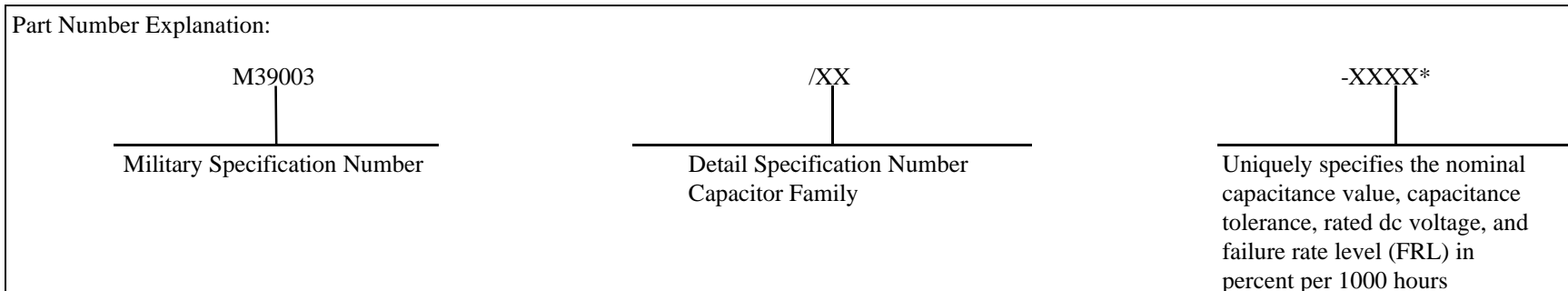
 Uniquely specifies the nominal capacitance value, capacitance tolerance, rated dc voltage, and failure rate level. (Note 1)

Part Number	Detail Specification	Style (Note 2)	Capacitance		Working Voltage (Vdc) @ +125°C	Maximum Dissipation Factor (%)	Temperature		Lead Type	FRL
			Range (pF)	Tolerances ±			Range (°C)	Coefficient (ppm/°C)		
M23269/01-XXXX	MIL-C-23269/1	CYR10	0.5-300	0.25 pF 0.50 pF 1%, 2%, 5%	100	0.1	-55 to +125	140 ±25	Axial Wire Lead	S
M23269/02-XXXX	MIL-C-23269/2	CYR15	220-1,200	1%, 2%, 5%						
M23269/03-XXXX	MIL-C-23269/3	CYR20	560-3,300							
M23269/04-XXXX	MIL-C-23269/4	CYR30	3,600-6,200							

Notes:

1. See applicable MIL-C-23269 detailed specification for capacitance values and tolerances.
2. Lead material and coating are specified in the detailed specification sheet for each device type.

MIL-C-39003 Capacitors **Fixed, Tantalum (Solid) Electrolytic, Polarized, Established Reliability**



Part Number (Notes 1, 2)	Detail Specification	Style	Capacitance		Rated Voltage (Vdc)	Operating Temperature Range (°C)	Configuration			FRL	
			Range (µF)	Tolerances (±%)			Case Type	Lead		Grade 1	Grade 2
								Type	Material		
M390003/10-XXXX* (Note 3)	MIL-C-39003/10 Polarized	CSS13	0.12 - 220.0	10	10, 15 20, 35 50, 75	-55 to +125	Tubular	Axial	Tin-lead coated nickel; Solder coated nickel	C	B
M390003/01-XXXX (Note 4)	MIL-C-39003/1 Polarized	CSR13	0.0047 - 4.7	10, 20	50				Tin-lead coated nickel; Solder coated nickel	C (Note 5)	B
M390003/02-XXXX (Note 4)	MIL-C-39003/2 Polarized	CSR09	0.047 - 15.0	10	10, 20 35, 50, 75				Nickel-iron alloy	C (Note 5)	B
M390003/09-XXXX (Note 4)	MIL-C-39003/9 Nonpolarized	CSR21	5.6-330	5, 10, 15	6, 10, 15 20, 35, 50				Tin-lead coated nickel	C (Note 5)	B
M390003/10-XXXX* (Note 3)	MIL-C-39003/10 Polarized	CSS33	1.2 - 560.0	10	10, 20 35, 50				Tin-lead coated nickel; Solder coated nickel	C	B

Notes:

1. Solid Tantalum Capacitors are subject to inrush current failures. Effective series resistance for MIL-C-39003 capacitors should be at least 0.3 ohms/volt or 1 ohm whichever is greater, for Grade 1 and at least 0.1 ohms/volt or 1 ohm, whichever is greater, for Grade 2 applications. MIL-C-39003 capacitors should not be used in power supply filters. MIL-C-39006/22, CLR 79 or MIL-C-39006/25, CLR 81 style parts are preferred for power supplies.
2. Parts covered by this specification contain internal soldered connections which may reflow during installation. The A, A1, B, B1 case sizes are particularly susceptible and special precautions such as heat sinking are recommended when soldering onto boards.
3. The symbol * completes the dash number thus: * = S for Sleeved, U for Unsleeved.
4. CSR09, CSR13 and CSR21 capacitors are sleeved (insulated case).
5. All CSR13, CSR09, and CSR21 Grade 1 capacitors must be subjected to the surge current test in accordance with Appendix A.

MIL-C-39006 Capacitors (Page 1 of 2)
Fixed, Tantalum (Nonsolid) Electrolytic, Hermetically Sealed, Established Reliability

Part Number Explanation:		
M39006	/XX	XXXXH
Military Specification Number	Detail Specification Number	Uniquely specifies the nominal capacitance value, capacitance tolerance, rated dc voltage, dc leakage, and failure rate level. The "H" denotes a construction suitable for use in high vibration environments. (Note 1)

Part Number	Number Specification	Style	Capacitance		Working Voltage (Vdc) @ +85°C	Operating Temperature Range (°C)	FRL	
			Range (µF)	Tolerances (±%)			Grade 1	Grade 2
M39006/01-XXXXH	MIL-C-39006/1 Polarized/Etched Foil	CLR25	8 to 580	+75, -15	15, 25 or 30	-55 to +125	(Note 2)	P
			3 to 150	+50, -15	50 or 75			
			1 to 70	+30, -15	100 or 150			
M39006/02-XXXXH	MIL-C-39006/2 Nonpolarized/Etched Foil	CLR27	4.5 to 350	+75, -15	15, 25 or 30			
			1.5 to 80	+50, -15	50 or 75			
			0.5 to 35	+30, -15	100 or 150			
M39006/03-XXXXH	MIL-C-39006/3 Polarized/Plain Foil	CLR35	4.5 to 160	±20	15			
			3 to 100	±20	25			
			2.5 to 85	±20	30			
			68	±20	35			
			1.5 to 55	±20	50			
			1 to 40	±20	75			
			0.8 to 30	±20	100			
			0.5 to 20	±20	150			

See notes on page 01-8.

MIL-C-39006 Capacitors (Page 2 of 2)
Fixed, Tantalum (Nonsolid) Electrolytic, Hermetically Sealed, Established Reliability

Part Number	Detail Specification	Style	Capacitance		Working Voltage (Vdc) @ +85°C	Operating Temperature Range (°C)	FRL	
			Range (µF)	Tolerances (±%)			Grade 1	Grade 2
M39006/04-XXXXH	MIL-C-39006/4 Nonpolarized/Etched Foil	CLR37	2.5 to 100	20	15	-55 to +125	(Note 2)	P
			1.5 to 60	20	25			
			1.4 to 45	20	30			
			0.8 to 30	20	50			
			0.5 to 20	20	75			
			0.4 to 15	20	100			
			0.25 to 10	20	150			
			0.15 to 7.5	15	200			
			0.15 to 6	15	250			
			0.12 to 4.7	15	300			
M39006/22-XXXXH	MIL-C-39006/22 Polarized/Sintered Slug	CLR79	20 to 750	5, 10, 20	10	-55 to +125	R	
			15 to 540	5, 10, 20	15			
			8 to 300	5, 10, 20	30			
			5 to 160	5, 10, 20	50			
			3.5 to 110	5, 10, 20	75			
			2.5 to 86	5, 10, 20	100			
			1.7 to 56	5, 10, 20	125			
M39006/25-XXXXH	MIL-C-39006/25 Polarized/Sintered Slug Extended Range	CLR81	150 to 1500	10, 20	10	-55 to +125	R	
			100 to 1000	10, 20	15			
			68 to 680	10, 20	25			
			56 to 560	10, 20	30			
			33 to 330	10, 20	50			
			27 to 270	10, 20	60			
			22 to 220	10, 20	75			
			10 to 120	10, 20	100			
			6.8 to 82	10, 20	125			

Notes:

1. CLR capacitors are susceptible to vibration failures if not procured with the H suffix (high vibration construction), and CLR79 and CLR81 capacitors can additionally be a source of transient potentials (intermittent shorts) during vibration stimuli.
2. There are currently no QPL manufacturers qualified to FRL "R" for these parts.

MIL-C-39014 Capacitors
Fixed, Ceramic Dielectric, Established Reliability

Part Number Explanation:		
M39014	/XX	-XXXX
Military Specification Number	Detail Specification Number	Uniquely specifies the nominal capacitance value, capacitance tolerance, rated dc voltage, and failure rate level in percent per 1000 hours

Part Number	Detail Specification	Style	Capacitance		Rated Voltage (Vdc) @ +125°C (Note 1)	Maximum Dissipation Factor (%)	Operating Temperature Range (°C)	Configuration		FRL Grade 2 (Note 2)
			Range (pF)	Tolerances (±%)				Case Type	Lead Type	
M39014/01-XXXX	MIL-C-39014/1	CKR05	10 - 100,00	10, 20	50, 100, 200	2.5	-55 to + 125	Molded	Radial	S
M39014/02-XXXX	MIL-C-39014/2	CKR06	1,200 - 470,000		50, 100			Tubular	Axial	
M39014/05-XXXX	MIL-C-39014/5	CKR11	10 - 10,000							
		CKR12	5,600 - 47,000							
		CKR14	12,000 - 100,000							
		CKR15	56,000 - 470,000	100	2.5, 3.0					
M39014/22-XXXX	MIL-C-39014/22	CKR22	1-100,000	2.5, 5 10, 20	50, 100, 200	.15, 3.0	Molded	DIP		
		CKR23	560-22,000							
		CKR24	120,000-1,000,000							

Notes:

1. For low voltage application (<10 volts dc), capacitor rated voltage shall be at least 100 volts dc.
2. MIL-C-39014 capacitors are not preferred for Grade 1 applications. MIL-C-123 capacitors are preferred.

MIL-C-55365 Capacitors

Chip, Fixed, Tantalum, Established Reliability

Part Number Explanation:

CWRXX	X	X	XXX	X	X
Style CWR identifies the MIL-C-55365 capacitor and XX identifies the capacitor style.	Voltage - A single letter symbol identifies the voltage (rated, derated, and surge) as follows:	Termination Finish B: Gold C: Hot solder Dipped	Capacitance in picofarads The first two digits represent significant figures and the last digit specifies the number of zeros to follow.	Capacitance tolerance J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	Failure Rate Level Weibull % per 1000 hrs. B = 0.1 C = 0.01

Symbol	Voltage (Volts, dc)		
	Rated (+85°C)	Derated (+125°C)	Surge (+85°C)
C	4	2.7	5.0
D	6	4.0	8.0
F	10	7.0	13.0
H	15	10.0	20.0
J	20	13.0	26.0
K	25	17.0	32.0
M	35	23.0	46.0
N	50	33.0	65.0

Part Number (Note 1)	Detail Specification	Capacitance		Rated Voltage (Vdc) @ +85°C	Operating Temperature Range (°C)	FRL	
		Range (μF)	Tolerances Available			Grade 1 (Note 2)	Grade 2
CWR06XXXXXXXX	MIL-C-55365/4	0.10 - 100.0	J, K, M	C, D, F, H, J, K, M, N	-55 to +125	C	B
CWR09XXXXXXXX	MIL-C-55365/4	0.10 - 100.0	J, K, M	C, D, F, H, J, K, M, N	-55 to +125	C	B

Notes:

- Solid Tantalum Capacitors are subject to inrush current failures. Effective series resistance for MIL-C-55365 capacitors should be at least 0.3 ohms/volt or 1 ohm whichever is greater, for Grade 1 and at least 0.1 ohms/volt or 1 ohm, whichever is greater, for Grade 2 applications. MIL-C-55365 capacitors should not be used in power supply filters.
- MIL-C-55365 capacitors shall be subjected to surge current testing in accordance with MIL-C-39003/10 for Grade 1 applications.

MIL-C-55681 Capacitors Chip (Page 1 of 2)
Multiple Layer, Fixed, Unencapsulated, Ceramic Dielectric, Established Reliability

Part Number Explanation:						
CDRYY	BY	XYZ	Y	Y	Y	Y
Style - CDR identifies the MIL-C-55681 capacitor and YY identifies the capacitor style.	Rated temperature (B) and voltage temperature limits (Y) (Note 1) B = -55°C to +125°C Y = P = 0± 30ppm/°C Y = X = +15%, -25% Y = G = 90 ± 20ppm/°C	Capacitance in pF. XY = Significant digits Z = number of zeros For values less than 10pF, X and Z = Significant digits, Y = decimal point (R) (Note 2)	Rated Voltage (Vdc) A = 50 B = 100 C = 200 D = 300 E = 500	Capacitance Tolerance B = ±0.10pF C = ±0.25pF D = ±0.50pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20%	Termination Finish S = Solder-coated, final M = Palladium-silver N = Silver-nickel-gold U = Base Metallization-Barrier Metal-Solder coated	Failure Rate Level: (% per 1000 hrs) P = 0.1 R = 0.01 S = 0.001

Part Number	Detail Specification	Style	Capacitance		Rated Voltage @ +125°C (Vdc) (Note 3)	Operating Temperature Range (°C)	Rated Temperature & Voltage Temperature Limits	FRL	
			Range (pF) (Note 2)	Tolerances Available				Grade 1 (Note 4)	Grade 2
CDR01BYYYYYYYY	MIL-C-55681/1	CDR01	10-4,700	I, K, M	100	-55 to +125	BX, BP	S	P, R
CDR03BYYYYYYYY		CDR03	330-68,000	J, K, M	50, 100		BX, BP		
CDR04BYYYYYYYY		CDR04	1,200,-180,000	K, M	50, 100		BX		
CDR05BYYYYYYYY	MIL-C-55681/2	CDR05	3,900-330,000	J, K, M	50, 100		BX, BP		
CDR06BYYYYYYYY	MIL-C-55681/3	CDR06	6,800-470,000	J, K, M	50, 100		BX, BP		
CDR11BYYYYYYYY	MIL-C-55681/4	CDR11	0.1-1,000	B, C, D, F G, J, K, M	50		BG, BP		
CDR12BYYYYYYYY		CDR12	0.1-1,000		50				
CDR13BYYYYYYYY		CDR13	0.1-5,100		50, 100, 200				
CDR14BYYYYYYYY		CDR14	6.8-5,100		300, 500				
CDR31BYYYYYYYY	MIL-C-55681/7	CDR31	1.0-18,000	F, J, K, M	50, 100, 200, 300		BX, BP		
CDR32BYYYYYYYY	MIL-C-55681/8	CDR32	1.0-39,000	B, C, D, F, J, K, M	50, 100		BX, BP		
CDR33BYYYYYYYY	MIL-C-55681/9	CDR33	1,000-100,00	F, J, K, M	50, 100		BX, BP		
CDR34BYYYYYYYY	MIL-C-55681/10	CDR34	2,200-180,000	F, J, K, M	50, 100		BX, BP		
CDR35BYYYYYYYY	MIL-C-55681/11	CDR35	4,700-470,000	F, J, K, M	50, 100		BX, BP		

See notes on page 01-12.

MIL-C-55681 Capacitors Chip (Page 2 of 2)
Multiple Layer, Fixed, Unencapsulated, Ceramic Dielectric, Established Reliability

Notes:

1. Capacitance change is a function of voltage and temperature and is referenced to 25°C and rated voltage.
2. See MIL-C-55681 for capacitance values.
3. For low voltage applications (<10 Vdc), capacitor rated voltage shall be at least 100 volts dc.
4. Additional testing shall be performed in accordance with Appendix A. Test samples shall not be used as flight parts.

MIL-C-83421 Capacitors (Note 1)
Fixed, Metallized Plastic Film Dielectric, Hermetically Sealed, Established Reliability

Part Number Explanation:				
M83421	/XX	- X	XXX	X
Military Specification Number	Detail Specification Number	Style 1 = CRH01 2 = CRH02 3 = CRH03 4 = CRH04 5 = CRH05	Uniquely specifies the capacitance value, capacitance tolerance, ac ratings, and physical dimensions of the capacitor	Failure Rate Level: (% per 1000 hrs.) R = 0.01 S = 0.001

Part Number	Detail Specification	Style (Note 2)	Capacitance		Rated Voltage @ +100°C (Vdc)	Dissipation Factor (% max)	Dielectric Absorption (% max)	Operating Temperature Range (°C)	FRL	
			Range (μF)	Tolerances (±%)					Grade 1	Grade 2
M83421/01-XXXXX (Note 3)	MIL-C-83421/1	CRH01	0.001-22.0	1, 5, 10	30	0.15	0.1	-65 to +100	S	R
		CRH02	0.001-10.0		50					
		CRH03	0.001-10.0		100					
		CRH04	0.001-3.9		200					
		CRH05	0.001-2.0		400					

Notes:

- These parts shall not be used outside of the limits under INTENDED USE in the notes section of MIL-C-83421. Minimum stored energy in the range 100 to 500 microjoules is recommended to insure clearing. Applications for these capacitors shall be limited to circuits that will provide sufficient energy to insure clearing and that are insensitive to momentary breakdown/clearing actions.
- Lead material and coating are specified in MIL-C-83421/1.
- Parts covered by this specification contain internal soldered connections which may reflow during installation. The plastic dielectric in these parts is also temperature sensitive. Special precautions such as heat sinking are recommended when soldering onto boards.

MIL-C-87217 Capacitors
Fixed, Supermetallized Plastic Film Dielectric, Direct Current for Low Energy, High Impedence Applications,
Hermetically Sealed in Metal Cases, High Reliability

Part Number Explanation:

M87217	/XX	-X	XXX	X
Military Specification Number	Detail Specification Number	Specifies capacitor style and rated voltage 1 = CHS01, 30V 2 = CHS02, 50V 3 = CHS03, 100V	Uniquely specifies the the capacitance value, tolerance, and dimensions	A = Sleeved B = Unsleeved

Part Number	Detail Specification	Style (Note 1)	Capacitance		Rated Voltage @ +100°C (Vdc)	Operating Temperature Range (°C)	Grade
			Range (μF)	Tolerances (±%)			
M87217/01-XXXXXX (Notes 1, 2)	MIL-C-87217/1	CHS01	0.001 - 10.0	0.25, 0.5,	30	-55 to +100	(Note 3)
		CHS02		1.0, 2.0,	50		
		CHS03		5.0, 10.0	100		

Notes:

1. To ensure clearing of breakdown, it is recommended that the circuit in which capacitors of 0.1 μF and greater capacitance are intended for use should be capable of providing at least 100 microjoules of energy.
2. Parts covered by this specification contain internal soldered connections which may reflow during installation. The plastic dielectric in these parts is also temperature sensitive. Special precautions such as heat sinking are recommended when soldering onto boards.
3. These parts may be used in Grade 1 and Grade 2 applications.